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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,500	11/30/2000	Patric Heide	051480-5032	8866

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EXAMINER

BANGACHON, WILLIAM L

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 10/23/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/725,500

Applicant(s)

HEIDE ET AL.

Examiner

William Bangachon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Examiner's Response

1. This Office Action is in response to the amendment filed 7/30/03 and is believed to be fully responsive to the arguments presented. The presentation of claims in view of the arguments and the present state of the prior art were considered. The Examiner respectfully traverses Applicant's arguments. It is the Examiner's position that claims 1-11 stands unpatentable for the reasons set forth in this Office action:

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive. In this case, applicant argues that **"King does not teach an evaluation unit evaluating the echo signal to determine authorization of the code transmitter and to determine a distance between the code transmitter and the receiving unit."** (paragraph bridging pages 2 and 3; page 3, 4th and 6th paragraphs). The examiner respectfully traverses applicants arguments in that King clearly teaches an evaluation unit/controller (40) evaluating the echo signal to determine authorization of the code transmitter (22) and to determine a distance between the code transmitter (22) and the receiving unit (20), as claimed. The code transmitter (22) and the receiving unit (20) are shown in figure 1. Evaluating the echo signal to determine authorization of the code transmitter (22) is described in column 1, lines 54-56. Determining the distance between the code transmitter (22) and the receiving unit (20) is described in column 1,

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lines 47-51 and shown in the graphs of figures 2A-2C. Determining authorization and distance is described in column 1, lines 47-48 as "detecting the presence and distance of the key fob (analogous to the claimed code transmitter) from the sensor (analogous to the claimed transmitting and receiving unit)." Claim 7 recites a method of practicing the system of claim 1 and therefore rejected for the same reasons.

Rejection to claims 1-11 is therefore maintained in this Office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,236,333 (King).

In claims 1 and 2, King discloses an anti-theft protection system for a motor vehicle {see whole document}, the anti-theft protection system comprising:

a transmitting and receiving unit (20) adapted to be arranged on the motor vehicle, the transmitting and receiving unit transmitting a transmitted signal that is modulated over a broad bandwidth {col. 2, lines 33-35; col. 4, lines 17-22};

a code transmitter (22) adapted to be portable with respect to the motor vehicle, the code transmitter transmitting an echo signal at least in response to receiving the transmitted signal {col. 2, lines 16-26}; and

an evaluation unit/controller (40) evaluating the echo signal to determine authorization of the code transmitter (22) and to determine a distance between the code transmitter and the transmitting and receiving unit (20) {col. 1, lines 44-58; col. 2, line 43-col. 3, line 55}.

8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King).

With regards to claims 3 and 4, King does not disclose expressly a plurality of the transmitting and receiving units (42) adapted to be distributed on the motor vehicle. However, as an alternative, King discloses that "controllers can be installed in each sensor 30a-e to generate distance and scenario profiling" {col. 2, lines 59-61}. The controller transmits interrogation signals and receives echo signals via the transmitter / receiver (42). Obviously, if the controller is installed in each sensor 30a-e (as shown in figure 1), then a plurality of the transmitting and receiving units (42) is distributed on the motor vehicle. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a plurality of the transmitting and receiving units (42) distributed on the motor vehicle of King, if the controller (40) is installed in each sensor 30a-e.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of US 5,956,259 (Hartsell, Jr. et al).

In claim 5, King does not disclose the evaluation unit / controller (42) triangulates the echo signal received by each of the plurality of the transmitting and receiving units to determine the location of the code transmitter with respect to the transmitting and receiving unit. Determining the location of a mobile object with triangulation techniques is conventional as evidenced by Hartsell {Hartsell, col. 9, lines 9-44} and would have been obvious in the system of King to one of ordinary skill in art.

The systems of King and Hartsell are analogous art because they are from similar problem solving area, distance determination using wireless communication. Hartsell teaches of **triangulation techniques** for determining the distance between a vehicle (1B) and a plurality of fueling stations (10A-10D) {Hartsell, col. 9, lines 9-44}. Hartsell suggests triangulation requires at least two antennas {Hartsell, col. 9, lines 35-37}. This is to ensure that the owner of the vehicle 1B is charged the correct amount when fueling and not charged the amount vehicle 1D or vehicle 1A has incurred. On the other hand, King suggests as an alternative, to have a controller (40) installed in each sensors 30a-e to generate distance and scenario profiling in each sensor {King, col. 2, lines 59-61}. The system of King has more than two antennas and obviously adapted for triangulation techniques by comparing the magnetic fields in each sensor 30a-e. Therefore, at the time of the invention, it would have been obvious to one of

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ordinary skill in the art to have the evaluation unit / controller (42) triangulate the echo signal (as evidenced by Hartsell, Jr. et al) received by each of the plurality of the transmitting and receiving units (30a-e) to determine the location of the code transmitter with respect to the transmitting and receiving unit by comparing the magnetic fields in each sensor 30a-e, because this will ensure that only the door that the owner of the vehicle (20) approach will unlock.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of US 4,723,121 (van den Boom et al).

In claim 6, King does not disclose a plurality of the code transmitters, each of the plurality of code transmitters transmitting different modulated echo signals; and wherein the evaluation unit evaluates and prioritizes the different modulated echo signals. However, these claim limitations would have been obvious in the system of King, to one of ordinary skill in the art. It is desirable to have a plurality of code transmitters in the system of King in case the single code transmitter gets lost or misplaced. In which case, the owner of a vehicle can still open the vehicle doors or drive the vehicle, to one of ordinary skill in the art. Unfortunately, keys get misplaced during emergencies. As evidenced by van den Boom, multiple electronic keys 10' and 10'' (code transmitters) can be associated with a lock 20 wherein the relationship of the lock to the keys can be tailored {van den Boom, col. 10, lines 7-21}. The systems of King and van den Boom are analogous art because they are from same field of endeavor, vehicle-locking

apparatus. Therefore, at the time of the invention, it would be obvious to one of ordinary skill in the art to have plurality of code transmitters in the system of King wherein the relationship of each code transmitter with the lock can be tailored (as evidenced by van den Boom), because in case the single code transmitter gets lost or misplaced, the owner of a vehicle can still open the vehicle doors or drive the vehicle.

11. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,236,333 (King) in view of US 5,956,259 (Hartsell, Jr. et al) and US 4,723,121 (van den Boom et al).

Claims 7-11 recites a method for practicing the vehicle anti-theft protection of claims 1-6 and therefore rejected for the same reasons.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L Bangachon whose telephone number is 703-305-2701. The examiner can normally be reached on 4/4/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

William L Bangachon
Examiner
Art Unit 2635

October 20, 2003

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

